SAFETY DATA SHEET

AVGAS 100LL (< 0,1% benzene)

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

SECTION 1: Identification of the substance / mixture and of the company / undertaking

Date issued	09.01.2017
Revision date	29.01.2020

1.1. Product identifier

Product name	AVGAS 100LL (< 0,1% benzene)
Extended SDS with ES incorporated, comments	Exposure Scenario available. See section 16.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Product group	Fuel.
Use of the substance / preparation	Low lead content aviation gasoline fuel for piston engined aircraft
Uses advised against	This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the supplier.

1.3. Details of the supplier of the safety data sheet

Company name	Aviation Fuelling Services Norway AS
Office address	Drammensveien 134
Postal address	Postboks 1154 Sentrum
Postcode	NO-0107
City	Oslo
Country	Norway
Telephone number	+47 22 54 00 50
Email	support@afsn.no
Website	www.afsn.no
Enterprise No.	914 948 681

1.4. Emergency telephone number

Emergency telephone	Telephone number: +47 22 59 13 00 Description: Norwegian Poison Information Center

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Flam. Liq. 1; H224 Acute Tox. 4; H302 Asp. Tox. 1; H304 Acute Tox. 4; H312 Skin Irrit. 2; H315 Acute Tox. 4; H332 STOT SE 3; H336 Repr. 2; H361 STOT RE 2; H373 Aquatic Chronic 2; H411
Substance / mixture hazardous properties	Extremely flammable liquid and vapour. Harmful if swallowed. May be fatal if swallowed and enters airways. Harmful in contact with skin. Causes skin irritation. Harmful by inhalation. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictograms (CLP)

Composition on the label	Gasoline, Tetraethyl lead
Signal word	Danger
Hazard statements	H224 Extremely flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H312 Harmful in contact with skin. H315 Causes skin irritation. H332 Harmful if inhaled. H336 May cause drowsiness or dizziness. H361 Suspected of damaging fertility or the unborn child H373 May cause damage to organs through prolonged or repeated exposure H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe dust / fume / gas / mist / vapours / spray. P280 Wear protective gloves / protective clothing / eye protection / face protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor /

	physician. P331 Do NOT induce vomiting. P501 Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

2.3. Other hazards

PBT / vPvB	The substances do not meet current criteria for vPvB or PBT(very persistent and very bioaccumulative or Persistent, Bioaccumulative and Toxic).
Physicochemical effects	Static accumulator: This product may accumulate static electricity. The vapours are heavier than air and will spread along the floor. Can form explosive gas-air mixtures.
Health effect	Parts of the chemical might be absorbed through the skin. If, by vomitting, the chemical reaches the lungs, life-threatening chemical pneumonia may develop. This product contains tetraethyl lead which is known to accumulate in the human body. There are indications from human epidemiological studies that exposure to tetraethyl lead may cause developmental and neurobehavioral effects in the unborn child. Injections through the skin after contact with the product at high pressure constitute a major medical hazard. The injuries do not immediately appear severe, but within a few hours, the skin tissue becomes swollen, discolored and with very painful subcutaneous necrosis.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Gasoline	CAS No.: 86290-81-5 EC No.: 289-220-8 REACH Reg. No.: 01-2119471335-39	Flam. Liq. 1; H224 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Repr. 2; H361 Aquatic Chronic 2; H411	≤ 100 %	
Tetraethyl lead	CAS No.: 78-00-2 EC No.: 201-075-4 REACH Reg. No.: 01-2119622080-57	Acute Tox. 2; H300 Acute Tox. 1; H310 Acute Tox. 2; H330 Repr. 1A; H360 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	0 - 0,125 %	

Description of the mixture	Complex mixture of hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons with carbon numbers predominantly in the C4 to C12 range (including toluene, xylene, cyclohexane, n-hexane, trimethylbenzenes, naphtalene, cumene og ethylbenzene). Contains lead alkyl anti-knock additives. Maximum lead concentration: 0.56 g/l. Maximum tetraethyl lead content is 0.125% w/w. May also contain several additives at <0.1% v/v each. This product is dyed for grade identification.
Remarks, substance	CAS-nr.:86290-81-5 contains < 0,1% Benzene. This indicates that the ingredient is neither carcinogenic nor mutagenic.

Substance comments	See section 16 for explanation of hazard statements (H) listed above.

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Emergency telephone number: see section 1.4. In case of unconsciousness or severe accidents, call 113.
Inhalation	Provide rest, warmth and fresh air. Get medical attention if any discomfort continues. In case of unconsciousness, loosen tight-fitting clothing. If respiratory problems, provide artificial respiration or oxygen. Seek medical advice.
Skin contact	Remove contaminated clothing. Immediately flush with large amount of water, at least for 15 min. Wash skin thoroughly with soap and water. Contact physician if irritation persists.
Eye contact	Promptly rinse eyes with plenty of water (tempered at 20-30°C) for at least 15 minutes. Remove contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention immediately!

4.2. Most important symptoms and effects, both acute and delayed

General symptoms and effects	Risk of chemical pneumonia (pneumonitis) if aspirated during and after ingestion.
Acute symptoms and effects	Inhalation: Vapours may cause drowsiness and dizziness. In high concentrations, vapors have narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin contact: The chemical irritates the skin and can cause itching, burning and redness. Parts of the chemical might be absorbed through the skin. Eye contact: May cause eye irritation. Symptoms may be stinging pain and redness in the eyes. Ingestion: Symptoms such as coughing, breathing difficulties, vomiting or lethargy may indicate chemical pneumonitis.
Delayed symptoms and effects	Injections through the skin after contact with the product at high pressure constitute a major medical hazard. The injuries do not immediately appear severe, but within a few hours, the skin tissue becomes swollen, discolored and with very painful subcutaneous necrosis. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed

Medical monitoring for delayed effects	Chemical pneumonia.
Other information	Treat symptomatically. No specific information from the manufacturer.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	In case of major fire and large quantities: Foam. Water spray, fog or mist. Small fires: Powder. Carbon dioxide (CO2). Sand. Earth.
Improper extinguishing media	Do not use water jet. Avoid using foam and water on the same surface at the same time as the water will destroy the foam.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	Extremely flammable liquid and vapour. Closed containers can burst violently when heated, due to excess pressure build-up. Can form explosive gas-air mixtures. Vapours are heavier than air and may spread near ground to sources of ignition. Static accumulator: This product may accumulate static electricity.
Hazardous combustion products	May include, but is not limited to: Carbon dioxide (CO2). Carbon monoxide (CO). Sulfur oxides. Unspecified organic compounds.

5.3. Advice for firefighters

Personal protective equipment	Use compressed air equipment when the chemical is involved in fire. In case of evacuation, an approved protection mask should be used. See also section 8.
Other information	If there is no risk involved, move the containers to a safe place. If not possible, cool with water from a safe position. Extinguishing water must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Keep away from sources of ignition - No smoking.
Personal protection measures	Provide adequate ventilation. Use protective equipment as referred to in section 8. Avoid inhalation of vapours and contact with skin and eyes. Avoid inhalation of gas.

6.2. Environmental precautions

Environmental precautionary measures	Do not allow to enter into sewer, water system or soil.

6.3. Methods and material for containment and cleaning up

Clean up	Shut off leaks if without risk. Collect with absorbent, non-combustible material into suitable containers. Proposals for inert materials: sand, kieselguhr, universal binder. Collect in a suitable container and dispose as hazardous waste according to section 13. In cases where a lot of liquid is spilled (> 1 barrel), the spill is transferred mechanically by, for example, a vacuum tank truck which transports the waste to a collection tank for recycling or safe disposal. Do not rinse material debris with water.
Other information	Vapours may form explosive mixtures with air on the ground. Static accumulator: This product may accumulate static electricity.

6.4. Reference to other sections

Other instructions	See also sections 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Provide adequate ventilation. Mechanical ventilation or local exhaust ventilation may be required. Use protective equipment as referred to in section 8. Avoid inhalation of vapours and contact with skin and eyes. Avoid swallowing. Product transfer: Wait 2 minutes after tank filling (for tanks such as those on road tanker vehicles) before opening hatches or manholes. Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur. Be aware of handling operations that may give rise to additional hazards that result from the accumulation of static charges. These include but are not limited to pumping (especially turbulent flow), mixing, filtering, splash filling, cleaning and filling of tanks and containers, sampling, switch loading, gauging, vacuum truck operations, and mechanical movements. These activities may lead to static discharge e.g. spark formation. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (≤ 1 m/s until fill pipe submerged to twice its diameter, then ≤ 7 m/s).

Protective safety measures

Safety measures to prevent fire	Do not use near naked flames or glowing materials. Keep away from sources of ignition - No smoking. Do not spray on a naked flame or red-hot material. Take precautionary measures against static discharges. Ground / bond container and receiving equipment. Use explosion-proof electrical / ventilating / lighting / / equipment. Use only non-sparking tools.
Additional information	Vapors may form explosive mixtures with air. The vapours are heavier than air and will spread along the floor.
Advice on general occupational hygiene	Do not eat, drink or smoke during work. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash contaminated clothing before reuse. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Storage on barrels and in small containers: Use approved containers. Store in a well-ventilated place. Tank storage: Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked (bunded). Follow rules for flammable liquids.
Conditions to avoid	Avoid heat, flames and other sources of ignition. Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Conditions for safe storage

Packaging compatibilities	Suitable material: For containers, or container linings use mild steel, stainless steel. Aluminium may also be used for applications where it does not present an unnecessary fire hazard. Examples of suitable materials are: high density polyethylene (HDPE), polypropylene (PP), and Viton (FKM), which have been specifically tested for compatibility with this product. For container linings, use amine-adduct cured epoxy paint. For seals and gaskets use: graphite, PTFE, Viton A, Viton B. Unsuitable material: Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber (EPDM), polymethyl methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC), polyisobutylene., However, some may be suitable for glove materials.
Advice on storage compatability	Keep away from: Strong oxidizing agents. Food and feed.

7.3. Specific end use(s)

Specific use(s)	See section 1.2. See exposure scenario.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Gasoline	CAS No.: 86290-81-5	Limit value (8 h) : 100 ppm Limit value (8 h) : 500 mg/m³ Comments: Extraction gasoline (unspecified)	
Tetraethyl lead	CAS No.: 78-00-2	Limit value (8 h) : 0,01 ppm **Exposure limit letter** Letter code: HR Limit value (8 h) : 0,075 mg/m³ **Exposure limit letter** Letter code: HR	
Toluene	CAS No.: 108-88-3	Limit value (8 h) : 25 ppm **Exposure limit letter** Letter code: H Limit value (8 h) : 94 mg/m³	
Xylen	CAS No.: 1330-20-7	Limit value (8 h) : 25 ppm Limit value (8 h) : 108 mg/m³ H	
Ethylbenzene	CAS No.: 100-41-4	Limit value (8 h) : 20 mg/m³ Limit value (8 h) : 5 ppm **Exposure limit letter** Letter code: H, K, E	
Cyclohexane	CAS No.: 110-82-7	Limit value (8 h) : 150 ppm Limit value (8 h) : 525 mg/m³	
n-Hexane	CAS No.: 110-54-3	Limit value (8 h) : 20 ppm Limit value (8 h) : 72 mg/m³	

		Exposure limit letter Letter code: R
Trimetylbenzen	CAS No.: 25551-13-7	Limit value (8 h) : 20 ppm Limit value (8 h) : 100 mg/m³ **Exposure limit letter** Letter code: E Comments: Mesitylene (trimethylbenzenes)
Naphthalene	CAS No.: 91-20-3	Limit value (8 h) : 10 ppm Limit value (8 h) : 50 mg/m³ **Exposure limit letter** Letter code: E
Cumene	CAS No.: 98-82-8	Limit value (8 h) : 20 ppm Limit value (8 h) : 100 mg/m³ **Exposure limit letter** Letter code: HK **Limit value (short term)** Value: 50 ppm **Limit value (short term)** Value: 250 mg/m³ **Exposure limit letter** Letter code: S
Decanes and higher aliphatic hydrocarbons		Limit value (8 h) : 40 ppm Limit value (8 h) : 275 mg/m³

Control parameters comments	Explanation of the notations: E = The EU has adopted a recommended limit value for the substance. Sk = Can be absorbed through the skin. Carc = Capable of causing cancer and/or heritable genetic damage. R = Toxic for Reproduction. S = The short-term exposure limit: the average concentration of a chemical substance in an employee's breathing zone that must not be exceeded over a given reference period. The reference period is 15 minutes unless otherwise specified. References (laws/regulations): Norwegian regulation on exposure limits: FOR 2011-12-06 nr 1358 Forskrift om tiltaks- og grenseverdier (sist endret gjennom FOR-2018-12-20-2186).

DNEL / PNEC

DNEL	Group: Professional Route of exposure: Acute inhalation (local) Value: 293 mg/m³ Comments: Applies to CAS 100-41-4. Group: Professional Route of exposure: Long-term inhalation (systemic) Value: 77 mg/m³ Comments: Applies to CAS 100-41-4. Group: Professional Route of exposure: Long-term dermal (systemic)

	Value: 180 mg/kg bw/day Comments: Applies to CAS 100-41-4. Group: Consumer Route of exposure: Long-term inhalation (systemic) Value: 15 mg/m³ Comments: Applies to CAS 100-41-4. Group: Consumer Route of exposure: Long-term oral (systemic) Value: 1,6 mg/kg bw/day Comments: Applies to CAS 100-41-4.

8.2. Exposure controls

Precautionary measures to prevent exposure

Technical measures to prevent exposure	Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. The personal protective equipment must be CE-marked and the latest version of the standards shall be used. The protective equipment and the specified standards recommended below are only suggestions, and should be selected on advice from the supplier of such equipment. A risk assessment of the work place/work activities (the actual risk) may lead to other control measures. The protection equipment's suitability and durability will depend on application.

Eye / face protection

Eye protection equipment	Description: Wear approved chemical safety goggles where eye exposure is reasonably probable. Reference to relevant standard: EN 166 (Personal eye-protection. Specifications).
Additional eye protection measures	Eye wash facilities should be available at the work place. Either a fixed eye wash facility connected to the drinking water (preferably warm water) or a portable disposable unit.

Hand protection

Suitable materials	Nitrile. For incidental contact/splash protection Neoprene, PVC gloves may be suitable.
Breakthrough time	Comments: Nitrilrubber: > 240 minutes
Thickness of glove material	Comments: No specific information from the manufacturer.
Hand protection equipment	Description: Use chemical resistant gloves. Glove thickness must be chosen in consultation with the glove supplier, who can inform about the breakthrough time for the glove. The gloves abilities may vary among the different glove manufacturers. Reference to relevant standard: BS-EN 374 (Protective gloves against chemicals and micro-organisms). BS-EN 420 (Protective gloves. General requirements and test methods).
Additional hand protection measures	Replace gloves if signs of wear and tear.

Skin protection

Recommended protective clothing	Description: Wear apron or protective clothing in case of contact. Bruk av antistatiske verneklær må vurderes.
Additional skin protection measures	Remove contaminated clothing and wash the skin thoroughly with soap and water after work. Wash contaminated clothing before reuse. Emergency shower should be available at the workplace.

Respiratory protection

Recommended respiratory protection	Description: In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A/P2). At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used. Reference to relevant standard: EN 14387 (Respiratory protective devices. Gas filter(s) and combined filter(s). Requirements, testing, marking). EN 12083 (Respiratory protective devices. Filters with breathing hoses, (Non-mask mounted filters). Particle filters, gas filters, and combined filters. Requirements, testing, marking). BS-EN 136 (Respiratory protective devices. Full face masks. Requirements, testing, marking) BS-EN 140 (Respiratory protective devices. Half masks and quarter masks. Requirements, testing, marking)

Appropriate environmental exposure control

Environmental exposure controls	Do not allow to enter into sewer, water system or soil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Blue. Clear
Odour	Hydrocarbon.
Odour limit	Comments: Not specified by the manufacturer.
pH	Comments: Not specified by the manufacturer.
Melting point / melting range	Value: < - 47 °C
Boiling point / boiling range	Value: 25 - 170 °C
Flash point	Value: ≤ - 40 °C
Evaporation rate	Comments: Not specified by the manufacturer.
Flammability (solid, gas)	Not relevant.
Explosion limit	Value: 1 - 8 vol%
Vapour pressure	Value: 380 - 490 hPa Temperature: 38,0 °C
Vapour density	Comments: Not specified by the manufacturer.
Relative density	Comments: See density.

Density	Value: ~ 744 kg/m³ Temperature: 15 °C
Solubility	Medium: Water Comments: Insignificant.
Partition coefficient: n-octanol/ water	Value: 2 - 7
Spontaneous combustability	Value: > 250 °C
Decomposition temperature	Comments: Not specified by the manufacturer.
Viscosity	Value: 0,5 - 0,75 mm2/s Temperature: 40 °C Type: Kinematic
Explosive properties	The chemical is not explosive, but may form explosive mixtures with air.
Oxidising properties	Not relevant.

9.2. Other information

Physical hazards

Conductivity	Comments: < 100 pS/m,

Other physical and chemical properties

Comments	No further information is available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Oxidises on contact with air.

10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Arise in contact with incompatible materials (see section 10.5) and/or under inappropriate conditions (see section 10.4).

10.4. Conditions to avoid

Conditions to avoid	Heat, sparks or open flame. Take precautionary measures against static discharge.

10.5. Incompatible materials

Materials to avoid	Strong oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products	None under normal conditions. See also section 5.2.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Other information regarding health hazards

Acute toxicity, mixture estimate	Dose: LD50 Route of exposure: Oral Value: > 300 ≤ 2000 mg/kg Comments: Rat Dose: LC50 Route of exposure: Inhalation. Value: > 10 ≤ 20 mg/l Dose: LD50 Route of exposure: Dermal Value: > 1000 ≤ 2000 mg/kg Comments: Rabbit
Assessment of acute toxicity, classification	Harmful if swallowed, in contact with skin or if inhaled.
Assessment of skin corrosion / irritation, classification	Irritating to skin.
Assessment of eye damage or irritation, classification	Based on available data, the classification criteria are not met.
Assessment of respiratory sensitisation, classification	Based on available data, the classification criteria are not met.
Assessment of skin sensitisation, classification	Based on available data, the classification criteria are not met.
Assessment of germ cell mutagenicity, classification	Based on available data, the classification criteria are not met.
Assessment of carcinogenicity, classification	Based on available data, the classification criteria are not met. Cumene og ethylbenzene is not classified as carcinogenic, but is marked as carcinogenic in the Norwegian working exposure limit list.
Assessment of reproductive toxicity, classification	Suspected of damaging fertility or the unborn child.
Assessment of specific target organ toxicity - single exposure, classification	May cause drowsiness or dizziness. Classification: STOT SE 3: H336.
Assessment of specific target organ toxicity - repeated exposure, classification	May cause damage to organs through prolonged or repeated exposure by inhalation. Classification: STOT RE 2; H373
Assessment of aspiration hazard, classification	May be fatal if swallowed and enters airways.

Symptoms of exposure

In case of ingestion	Harmful if swallowed. Symptoms such as coughing, breathing difficulties, vomiting or lethargy may indicate chemical pneumonitis.

In case of skin contact	Harmful in contact with skin. The chemical irritates the skin and can cause itching, burning and redness. Parts of the chemical might be absorbed through the skin. Injections through the skin after contact with the product at high pressure constitute a major medical hazard. The injuries do not immediately appear severe, but within a few hours, the skin tissue becomes swollen, discolored and with very painful subcutaneous necrosis.
In case of inhalation	Harmful if inhaled. Vapours may cause drowsiness and dizziness. High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.
In case of eye contact	May cause eye irritation. Symptoms may be stinging pain and redness in the eyes.
Other information	May cause damage to organs through prolonged or repeated exposure. May cause damage to the central nervous system, kidneys and liver. Suspected of damaging fertility or the unborn child.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity, fish	Toxicity type: Chronic Value: > 1,0 ≤ 10 mg/l Comments: NOEC/NOEL
Aquatic toxicity, algae	Toxicity type: Acute Value: > 1 ≤ 10 mg/l Comments: LL/EL/IL50
Aquatic toxicity, crustacean	Toxicity type: Acute Value: > 1 ≤ 10 mg/l Comments: LL/EL/IL50 Toxicity type: Chronic Value: > 1,0 ≤ 10 mg/l Comments: NOEC/NOEL
Ecotoxicity	Toxic to aquatic life with long lasting effects. Additional test data is available from the supplier/manufacturer.

12.2. Persistence and degradability

Persistence and degradability description/evaluation	Volatile solvents are rapidly oxidized by photochemical reaction in air. Major constituents in the chemical; Expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation, evaluation	The product contains potentially bioaccumulating substances. Log Pow: 2 - 7.

12.4. Mobility in soil

Mobility	Evaporates within one day from water or soil surfaces. May contaminate soil and groundwater. Floats on water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	The substances do not meet current criteria for vPvB or PBT(very persistent and very bioaccumulative or Persistent, Bioaccumulative and Toxic).

12.6. Other adverse effects

Additional ecological information	Do not allow to enter into sewer, water system or soil. Forms an oil film on water surfaces that may harm organisms in the water and disrupt oxygen transport in the boundary layer between air and water.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of disposal for the chemical	Disposed of as hazardous waste by approved contractor. The waste code (EWC-Code) is intented as a guide. The code must be chosen by the user, if the use differs from the one mentioned below.
EWC waste code	EWC waste code: 130702 petrol Classified as hazardous waste: Yes
NORSAS	7023 Fuel and heating oil.
Other information	Do not empty into drains.

SECTION 14: Transport information

Dangerous goods	Yes

14.1. UN number

ADR/RID/ADN	1203
IMDG	1203
ICAO/IATA	1203

14.2. UN proper shipping name

Proper shipping name English ADR/RID/ADN	GASOLINE
ADR/RID/ADN	GASOLINE
IMDG	GASOLINE
ICAO/IATA	GASOLINE

14.3. Transport hazard class(es)

ADR/RID/ADN	3
Classificaton code ADR/RID/ADN	F1
IMDG	3
ICAO/IATA	3

14.4. Packing group

ADR/RID/ADN	II
IMDG	II
ICAO/IATA	II

14.5. Environmental hazards

IMDG Marine pollutant	Yes

14.6. Special precautions for user

Special safety precautions for user	See also section 7.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Product name	GASOLINE

Additional information

Hazard label ADR/RID/ADN	3
Hazard label IMDG	3
Hazard label ICAO/IATA	3

ADR/RID Other information

Tunnel restriction code	D/E
Transport category	2
Hazard No.	33
Other applicable information ADR/RID	33

IMDG Other information

EmS	F-E, S-E

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

References (laws/regulations)	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP-regulation) with later amendments. Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH Regulation), with later amendments. Norwegian regulation on waste, 01.06.2004 no. 930, with later amendments. Dangerous Goods regulations
Comments	CAS 78-00-2 Tetraethyl lead is listed in the candidate list of Substances of Very High Concern. (SVHC, REACH).
Declaration No.	325757

15.2. Chemical safety assessment

Chemical safety assessment performed	Yes

SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	H224 Extremely flammable liquid and vapour. H300 Fatal if swallowed. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H310 Fatal in contact with skin. H312 Harmful in contact with skin. H315 Causes skin irritation. H330 Fatal if inhaled. H332 Harmful if inhaled. H336 May cause drowsiness or dizziness. H360 May damage fertility or the unborn child . H361 Suspected of damaging fertility or the unborn child H373 May cause damage to organs through prolonged or repeated exposure H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.
Key literature references and sources for data	The Safety Data Sheet is based on information provided by the producer. Earlier version(s) of the safety data sheet.
Abbreviations and acronyms used	ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road DNEL: Derived No Effect Level EWC: European Waste Code (a code from the EU's common classification system for waste) EC50: The effective concentration of substance that causes 50% of the maximum response EL50: The effective concentration of substance (slightly soluble) that causes 50% of the maximum response. IATA: The International Air Transport Association ICAO: The International Civil Aviation Organisation IMDG: The International Maritime Dangerous Goods Code LC50: Median concentration lethal to 50% of a test population. LD50: Lethal dose, is the amount of a substance given to a group of test animals, which causes the death of 50%. LL50: Lethal Loading rate. The effective concentration of substance that causes 50% of the maximum response for poorly water soluble substances. NOEC: No observed effect concentration NOEL: No Obserced Effect Level. The highest tested dose or exposure level at which, in a study, no statistically significant effect is observed in the exposed population compared with an appropriate control group. Log Pow: Partition coefficient: n-octanol / water OECD: Organisation for Economic Cooperation and Development. PBT: Persistent, Bioaccumulative and Toxic RID: The Regulations concerning the International Carriage of Dangerous Goods by Rail vPvB: very Persistent and very Bioaccumulative

Information added, deleted or revised	Layout changed.
Version	1
Prepared by	Kiwa Teknologisk Institutt as.
Contents or index of annexed ES	1 Manufacture of substance- Industrial 2 Use as an intermediate- Industrial 3 Distribution of substance- Industrial 4 Formulation & (re)packing of substances and mixtures- Industrial 5 Use as a fuel- Industrial 6 Use as a fuel- Professional
Exposure scenario	ES AVGAS 100LL EN.pdf